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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/755,846	01/12/2004	Wolfgang Singer	637.0003USQ	8440
7590	11/23/2005			
Charles N.J. Ruggier, ESQ. OHLANDT, GREELEY, RUGGIERO & PERLE, L.L.P. 10th FLOOR ONE LANDMARK SQUARE STAMFORD, CT 06901-2682			EXAMINER VANORE, DAVID A	
			ART UNIT 2881	PAPER NUMBER

DATE MAILED: 11/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/755,846	SINGER ET AL.	
	Examiner	Art Unit	
	David A. Vanore	2881	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 October 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) 34 and 35 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-33 and 36-41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 10/201652, 10/429927.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>7, 12/04; 3/05</u> . | 6) <input type="checkbox"/> Other: _____ |

Election/Restrictions

1. Claims 34 and 35 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on October 17, 2005.

Information Disclosure Statement

2. The information disclosure statements (IDS) submitted on July 26, 2004, December 6, 2004, and March 30, 2005 are being considered by the examiner.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-14, 17-33, and 36-41 are rejected under 35 U.S.C. 102(e) as being anticipated by Schultz et al. (USPN 6,570,168).

5. The applied reference has a common assignee and two common inventors with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this

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application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

6. Regarding claims 1, 32-33, 36-40, and 41, Schultz et al. teaches an illumination system for producing a microlithographically produced device such as a microelectronic component comprising at least two light sources (1.1 and 1.2) which provide light beams having wavelengths of light less than or equal to 193 nanometers in wavelength (Col. 1), and further includes optical elements having at least two areas thereon (4.1 and 4.2 having areas for producing six illustrated light channels in Fig. 1) illuminated by said light sources (Fig. 1), and a plane and carrier for accommodating a mask (Item 330), the light beams being produced by a wiggler which produces no coherency in the light beams (Col. 1).

7. Regarding claim 2-10, 12, 19-25, 27 Schultz et al. teaches that the optical element is divided into a plurality of areas (Note the stepped configuration of the optical element in Fig. 1, where six areas are indicated by the light channels reflected from optical element areas 4.1 and 4.2) receiving light and reflecting light as a plurality of channels (Fig. 1), the areas being spatially separate as indicated by the light channels, the optical element comprising a plurality of sets of raster elements (Fig. 2), and where the light sources comprise light collection means (Items 2.1 and 2.2) having substantially similar foci (Note Fig. 1) and an exit pupil (9) onto which light channels produced by the raster subsets are imaged to provide a plurality of illumination patterns (Fig. 4A-4D).

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8. Regarding claim 11, 13, 14, 26, 28-29 the illumination patterns are circular and may be different from one another as illustrated in Fig. 4A-4D.

9. Regarding claims 17-18, and 30-31, the light sources comprise reflectors (2.1 and 2.2) having elliptical shapes.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 15-16 are rejected under 35 U.S.C. 103(a) as being obvious over Schultz et al. (USPN 6,570,168) in view of Schultz et al. (USPN 6,438,199).

12. The applied reference has a common assignee and inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer

in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(I)(1) and § 706.02(I)(2).

13. Schultz et al. '168 teaches all the limitations required in claim 2 as pointed out above.

14. Schultz et al. '168 fails to teach or suggest the use of a spectral filter as part of a light source as required in claims 15-16 of the instant application.

15. Schultz et al. '199 teaches a light source comprising a spectral filter (Fig. 83 Item 8365)

16. Schultz et al. '199 modifies the prior art of Schultz et al. '168 to include a spectral filter in the light source.

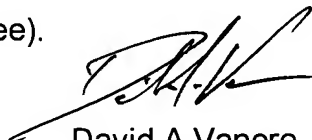
17. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a spectral filter in the light source of an optical lithography device such as that of Schultz et al. '168 because in the manufacturing of a lithographically produced device, the optical output of the light source is a critical factor in the lithography process where ensuring that uniform light output reduces the opportunity for error in fabricating a device by optical lithography.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David A. Vanore whose telephone number is (571) 272-2483. The examiner can normally be reached on M-F 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R. Lee can be reached on (571) 272-2477. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


David A Vanore
Patent Examiner
Art Unit 2881

11/21/05

dav